

AMENDMENTS TO THE CLAIMS

1 1-20. (canceled)

1 21. (currently amended) A companion body fluid analyzing cartridge comprising:

2 a base element ~~configured to be inserted into an instrument in relation to~~
3 mated with an associated sensing cartridge that is designed to perform an analyzing operation
4 on a body fluid, ~~wherein the base element and the associated sensing cartridge are shaped to~~
5 ~~define an interface communicating between the base element and the sensing cartridge;~~

6 ~~an entry~~ a port, on the base element for fluid communication with the
7 companion body fluid analyzing cartridge; and, ~~that provides entry of a fluid into the~~
8 ~~companion cartridge;~~

9 a fluid reservoir in fluid communication with said port, said fluid reservoir
10 containing a fluid that is to be provided to said associated sensing cartridge, said fluid
11 reservoir also being connected to receive waste materials from said associated sensing
12 cartridge, said companion body fluid analyzing cartridge being a modular subcomponent of
13 said associated sensing cartridge. , ~~in the base element, for holding a testing material, wherein~~
14 ~~the testing material is selected from one or more members of the group consisting of a body~~
15 ~~fluid and a reagent;~~

16 ~~in fluid communication with the fluid reservoir, an operator in which one or~~
17 ~~more testing materials undergo an assay or an assay preparation process;~~

18 ~~wherein the companion cartridge carries out an operation that facilitates the~~
19 ~~analyzing operation performed by the sensing cartridge, and, in conjunction with the sensing~~
20 ~~cartridge, is shaped so as to interact as a modular subcomponent of a diagnostic instrument.~~

1 22. (currently amended) The companion body fluid analyzing cartridge according to
2 claim 21, wherein the companion cartridge mates ~~is adapted to at least one interface~~ with said
3 sensing cartridge by at least one ~~selected from the group consisting of~~ a fluid interface, a
4 mechanical interface, and an electrical interface.

1 23. (currently amended) The companion body fluid analyzing cartridge of claim 21,
2 ~~wherein the companion cartridge comprises~~ further comprising a reagent storage system in
3 fluid communication with said port.

1 24. (currently amended) The companion body fluid analyzing cartridge of claim 21,
2 ~~wherein the companion cartridge comprises~~ further comprising a calibration fluid system in
3 fluid communication with said port.

1 25. (currently amended) The companion body fluid analyzing cartridge of claim 24,
2 further comprising ~~wherein the companion cartridge further comprises~~ a waste retrieval
3 system connected to the calibration fluid system.

1 26. (currently amended) The companion body fluid analyzing cartridge of claim 21,
2 further comprising ~~wherein the companion cartridge comprises~~ an assay element preparation
3 system in fluid communication with said fluid reservoir.

1 27. (currently amended) The companion body fluid analyzing cartridge of claim 26,
2 wherein the assay element preparation system includes one or more processes selected from
3 the group consisting of a blood chemistry process, a hematology process, an immuno-
4 diagnostics process, and a DNA testing process.

1 28. (currently amended) The companion body fluid analyzing cartridge of claim 26,
2 wherein the assay element preparation system includes one ore more operations selected from
3 the group consisting of a thermo cycling operation, an incubation operation, and an isolation
4 operation.

1 29. (currently amended) The companion body fluid analyzing cartridge of claim 21,
2 wherein the companion cartridge comprises a carrier fluid system in fluid communication
3 with said port.

1 30. (currently amended) The companion body fluid analyzing cartridge of claim 29,
2 wherein the carrier fluid system ~~is adapted to increase~~ is programmed to increase at least a
3 portion of the volume of an assay element.

1 31. (currently amended) The companion body fluid analyzing cartridge of claim 29,
2 wherein the carrier fluid system is connected to a waste retrieval system.

1 32. (currently amended) The companion body fluid analyzing cartridge of claim 29,
2 further comprising an assay element, wherein the carrier fluid remains essentially unmixed
3 with the assay element.

1 33. (currently amended) The companion body fluid analyzing cartridge of claim 29,
2 further comprising an assay element preparation system, wherein the carrier fluid remains
3 essentially unmixed with the assay element.

1 34. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge ~~according to claim 21 further~~
3 comprising a reagent storage system and a waste retrieval system such that said reagent
4 storage system and said waste retrieval system share at least one fluid reservoir, and
5 a sensor cartridge adjacent to and in fluid communication with the companion
6 body fluid analyzing cartridge, wherein the sensor cartridge provides chemical analysis of an
7 assay element.

1 35. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge ~~according to claim 21 further~~
3 comprising a calibration fluid system and a waste retrieval system such that said calibration
4 fluid system and said waste retrieval system share at least one fluid reservoir, and
5 a sensor cartridge adjacent to and in fluid communication with the companion
6 body fluid analyzing cartridge, wherein the sensor cartridge provides chemical analysis of an
7 assay element.

1 36. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge ~~according to claim 21 further~~
3 comprising an assay element preparation system and a waste retrieval system such that said
4 assay element preparation system and said waste retrieval system share at least one fluid
5 reservoir, and
6 a sensor cartridge adjacent to and in fluid communication with the companion
7 body fluid analyzing cartridge, wherein the sensor cartridge provides chemical analysis of an
8 assay element.

1 37. (currently amended) An analytical instrument comprising:
2 a companion body fluid analyzing cartridge ~~according to claim 21 further~~
3 comprising a carrier fluid system and a waste retrieval system such that said carrier fluid
4 system and said waste retrieval system share at least one fluid reservoir, and
5 a sensor cartridge adjacent to and in fluid communication with the companion
6 body fluid analyzing cartridge, wherein the sensor cartridge provides chemical analysis of an
7 assay element.

1 38.-43. (canceled)